5

 A method of modeling a logic design, comprising: creating a graphical representation of the logic design; and

generating simulation code based on the graphical representation.

- 2. The method of claim 1, wherein the graphical representation is comprised of functional block diagrams and virtual wires that interconnect the functional block diagrams.
- 3. The method of claim 2, wherein creating comprises: retrieving the functional block diagrams from a database; and

arranging the functional block diagrams and the virtual wires to model the logic design.

4. The method of claim 2, wherein creating comprises:

defining the functional block diagrams using simulation

code; and

arranging the functional block diagrams and the virtual wires to model the logic design.

5

5. The method of claim 1, further comprising: displaying a menu comprised of different types of functional block diagrams;

receiving an input selecting one of the different types of functional block diagrams;

retrieving a selected functional block diagram; and creating the graphical representation of the logic design using the selected functional block diagram.

- 6. The method of claim 1, further comprising: propagating a state through the simulation code; and determining if there is an error in the logic design based on the propagated state.
- 7. The method of claim 6, wherein the state comprises one of a zero state, a one state, and an undefined state.
- 8. The method of claim 6, further comprising:

  providing a visual indication if there is an error in
  the graphical representation of the logic design.

5

## 9. A method comprising:

displaying a menu comprised of different types of functional block diagrams;

receiving an input selecting one of the different types of functional block diagrams;

retrieving a selected functional block diagram; and creating a graphical representation of a logic design using the selected functional block diagram;

wherein creating comprises:

interconnecting the selected functional block diagram with one or more other functional block diagrams to generate a model of a logic design; and

defining the selected functional block diagram using simulation code if a function of the functional block diagram is undefined when retrieved.

10. The method of claim 9, further comprising:

generating simulation code to simulate the operation of
the logic design; and

testing the logic design by propagating one or more states through the simulation code.

5

11. An article comprising a machine-readable medium that stores executable instructions for modeling a logic design, the instructions causing a machine to:

create a graphical representation of the logic design; and

generate simulation code based on the graphical representation.

- 12. The article of claim 11, wherein the graphical representation is comprised of functional block diagrams and virtual wires that interconnect the functional block diagrams.
- 13. The article of claim 12, wherein creating comprises:

retrieving the functional block diagrams from a database; and

arranging the functional block diagrams and the virtual wires to model the logic design.

14. The article of claim 12, wherein creating comprises:

5

defining the functional block diagrams using simulation code; and

arranging the functional block diagrams and the virtual wires to model the logic design.

15. The article of claim 11, further comprising instructions that cause the machine to:

display a menu comprised of different types of functional block diagrams;

receive an input selecting one of the different types of functional block diagrams;

retrieve a selected functional block diagram; and create the graphical representation of the logic design using the selected functional block diagram.

16. The article of claim 11, further comprising instructions that cause the machine to:

propagate a state through the simulation code; and determine if there is an error in the logic design based on the propagated state.

- 17. The article of claim 16, wherein the state comprises one of a zero state, a one state, and an undefined state.
- 5 18. The article of claim 16, further comprising instructions that cause the machine to:

provide a visual indication if there is an error in the graphical representation of the logic design.

19. An article comprising a machine-readable medium that stores executable instructions that cause a machine to:

display a menu comprised of different types of
functional block diagrams;

receive an input selecting one of the different types of functional block diagrams;

retrieve a selected functional block diagram; and create a graphical representation of a logic design using the selected functional block diagram;

wherein creating comprises:

interconnecting the selected functional block diagram with one or more other functional block diagrams to generate a model of a logic design; and

defining the selected functional block diagram using simulation code if a function of the functional block diagram is undefined when retrieved.

5 20. The article of claim 19, further comprising instructions that cause the machine to:

generate simulation code to simulate the operation of the logic design; and

test the logic design by propagating one or more states through the simulation code.

- 21. An apparatus for modeling a logic design, comprising:
  - a memory that stores executable instructions; and
  - a processor that executes the instructions to:

create a graphical representation of the logic design; and

generate simulation code based on the graphical representation.

22. The apparatus of claim 21, wherein the graphical representation is comprised of functional block diagrams and

20

virtual wires that interconnect the functional block diagrams.

23. The apparatus of claim 22, wherein creating comprises:

retrieving the functional block diagrams from a database; and

arranging the functional block diagrams and the virtual wires to model the logic design.

24. The apparatus of claim 22, wherein creating comprises:

defining the functional block diagrams using simulation code; and

arranging the functional block diagrams and the virtual wires to model the logic design.

25. The apparatus of claim 21, wherein the processor executes instructions to:

display a menu comprised of different types of functional block diagrams;

receive an input selecting one of the different types of functional block diagrams;

retrieve a selected functional block diagram; and create the graphical representation of the logic design using the selected functional block diagram.

5 26. The apparatus of claim 21, wherein the processor executes instructions to:

propagate a state through the simulation code; and determine if there is an error in the logic design based on the propagated state.

- 27. The apparatus of claim 26, wherein the state comprises one of a zero state, a one state, and an undefined state.
- 28. The apparatus of claim 26, wherein the processor executes instructions to:

provide a visual indication if there is an error in the graphical representation of the logic design.

- 20 29. An apparatus comprising:
  - a memory that stores executable instructions; and
  - a processor that executes the instructions to:

5

display a menu comprised of different types of functional block diagrams;

receive an input selecting one of the different types of functional block diagrams;

retrieve a selected functional block diagram; and create a graphical representation of a logic design using the selected functional block diagram;

wherein creating comprises:

interconnecting the selected functional block diagram with one or more other functional block diagrams to generate a model of a logic design; and defining the selected functional block diagram using simulation code if a function of the functional block diagram is undefined when retrieved.

30. The apparatus of claim 19, wherein the processor executes instructions to:

generate simulation code to simulate the operation of the logic design; and

test the logic design by propagating one or more states through the simulation code.